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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,471	09/05/2003	James Alfred Dunnam	DUQU-01	8690

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EXAMINER

PARSLEY, DAVID J

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 05/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/656,471	Applicant(s) DUNNAM ET AL.	
	Examiner David J Parsley	Art Unit 3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Detailed Action

Amendment

1. This office action is in response to applicant's amendment dated 2-25-05 and this action is final.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4, 8, 13-14, 16 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 1,887,990 to Brownsdon et al.

Referring to claims 1 and 13, Brownsdon et al. discloses cylindrical tracer platform – at 3-4, for holding and carrying an integrated tracer element – at 6-7, for use with a hollow shotgun shell – at 1, having a lower end and an upper end – see figures 1-2, and also having a shot holder holding shot pellets – 8, located inside the upper end of the shotgun shell – at the upper portion of item – 1 or – at 4 or – at 10, a base – see at the lower end of the shell – 1, with a primer – see at the lower end of item – 1, for ignition located inside the lower end of the shotgun shell – see figures 1-2, and propellant – at 2, positioned proximate the primer – see figures 1-2, the tracer

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platform having a nose – see figures 1-2, a bottom and a coaxial cavity holding a tracer element – see for example figures 1-2, the bottom of the tracer platform having a generally concave cavity which acts as a gas seal upon ignition of the propellant – see for example figures 1-2, the tracer platform – at 6-7, having the tracer element filling a coaxial cavity having a lower end at the bottom of the tracer platform – at 4 or 10 see for example figures 1-2.

Referring to claims 2 and 14, Brownsdon et al. discloses the tracer element comprises a cylindrical housing – at 6, containing pyrotechnic material susceptible to ignition upon burning of the propellant – at 2 – see for example page 1 lines 67-78.

Referring to claims 4 and 16, Brownsdon et al. discloses the tracer element is selected from the group consisting of electrical material, reflective material, chemiluminescent material and pyrotechnic material – see for example column 1 lines 67-78.

Referring to claims 8 and 20, Brownsdon et al. discloses the nose of the tracer platform – at 6, has a shape selected from flat, conical and spherical – see for example figures 1-2.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brownsdon et al. as applied to claims 2 or 13 above, and further in view of U.S. Patent No.

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6,694,887 to Diller. Brownsdon et al. does not disclose the housing of the tracer element contains a fire-suppressing agent. Diller does disclose the housing of the tracer element – at 26, contains a fire-suppressing agent – see for example column 8 lines 25-32. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. and add the housing containing a fire-suppressing agent of Diller, so as to allow for the tracer element to not be consumed during the burning of the propellant.

Claims 5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brownsdon et al. as applied to claims 1 or 13 above, and further in view of U.S. Patent No. 3,262,390 to Cowles et al. Brownsdon et al. does not disclose the tracer platform has a ballistic coefficient equivalent to a shot pellet's ballistic coefficient. Cowles et al. does disclose the tracer platform – at 11-12, has a ballistic coefficient equivalent to a shot pellet's – at 15, ballistic platform – see for example column 3 lines 49-63. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. and add the tracer platform and shot having the same ballistic coefficient of Cowles et al., so as to allow for the tracer platform to accurately follow the path of the shot pellets upon ignition of the propellant in the shell.

Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brownsdon et al. as modified by Cowles et al. as applied to claims 5 or 17 above, and further in view of Diller. Brownsdon et al. as modified by Cowles et al. does not disclose the tracer platform is made from one or more materials selected from the group of aluminum, brass, lead, neoprene, nylon, polyethylene, polyurethane, rubber, steel, Teflon, and titanium. Diller does disclose the tracer platform – at 26, is made of plastics, metals and rubber – see for example column 8 lines 25-33. Therefore it would have been obvious to one of ordinary skill in the art to

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take the device of Brownsdon et al. as modified by Cowles et al. and add the tracer platform made of plastics, metals or rubber of Diller, so as to allow for the tracer platform to be durable.

Claims 7 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brownsdon et al. as applied to claims 1 or 13 above, and further in view of U.S. Patent No. 4,841,866 to Miesner. Brownsdon et al. does not disclose the tracer platform has a diameter in the range of 0.2 inches to 1.25 inches. Miesner does disclose the tracer platform – at 16, has a diameter in the range of 0.2 inches and 1.25 inches – see for example column 4 lines 31-40. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. and add the tracer platform having a diameter in the range of 0.2 inches and 1.25 inches of Miesner, so as to allow for the tracer platform to ballistically match the shot pellets.

Claims 9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brownsdon et al. '990 as applied to claims 1 or 13 above, and further in view of U.S. Patent No. 1,887,989 to Brownsdon et al. Brownsdon et al. '990 does not disclose the tracer platform has formed therein symmetrical cavities for holding weights for the adjustment of the tracer platform's weight and flight characteristics. Brownsdon et al. '989 does disclose cavities – inside 1, for holding weight – at m. Brownsdon et al. '990 as modified by Brownsdon et al. '989 does not disclose multiple weights, however it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. '990 as modified by Brownsdon et al. '989 and add extra weights, so as to allow for the weight of the tracer platform to correspond to the weight of the shot pellet's.

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Claims 9-12 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brownsdon et al. as applied to claims 1 or 13 above, and further in view of Diller.

Referring to claims 9 and 21, Brownsdon et al. does not disclose the tracer platform has formed therein symmetrical cavities for holding weights for the adjustment of the tracer platform's weight and flight characteristics. Diller does disclose the tracer platform – at 26, has formed therein symmetrical cavities for holding weights – at 28 – see for example figures 7-13. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. and add the cavities containing weights of Diller, so as to allow for the weight of the tracer platform to correspond to the weight of the shot pellet's.

Referring to claims 10 and 22, Brownsdon et al. does not disclose the tracer platform has an outer surface with grooves formed therein. Diller does disclose a tracer platform – at 26, with grooves – at 52 – see for example figure 8. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. and add the tracer platform with grooves of Diller, so as to allow for the tracer platform to closely follow the path of the shot pellets.

Referring to claims 11 and 23, Brownsdon et al. does not disclose the tracer platform has an outer surface with symmetrically positioned fins attached thereto. Diller does disclose the tracer platform has an outer surface with symmetrically positioned fins – at 56 attached thereto – see for example figure 8. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. and add the tracer platform with fins of Diller, so as to allow for the tracer platform to closely follow the path of the shot pellets.

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Referring to claims 12 and 24, Brownsdon et al. does not disclose the tracer platform has an outer surface with orifices formed therein. Diller does disclose the tracer platform – at 26,56, has an outer surface with orifices formed therein – see for example figure 15. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Brownsdon et al. and add the tracer platform with orifices of Diller, so as to allow for the tracer platform to closely follow the path of the shot pellets.

Response to Arguments

4. Applicant's arguments and amendments to the claims filed 2-25-05 overcome the 35 U.S.C. 112 2nd paragraph rejections set forth in the previous office action dated 10-29-04.

Regarding the prior art rejections to claims 1-24, applicant argues that the tracer element of the Brownsdon et al. reference US 1887990 does not travel with the shot located in the cartridge due to the orientation of the wad within the shot cartridge. However, the travel of the tracer element and the orientation of the wad are not claim limitations and therefore these arguments are moot.

Further, applicant argues that the Brownsdon et al. reference US 1887990 does not disclose the tracer element located away from the shot pellets and that the platform is not open, however these limitation are not specifically found in the claims. The Brownsdon et al. reference US 1887990 does disclose coaxial cavities – see at 3-4 and 9-10 in figures 1-2, in which the tracer element – at 6-7, is located inside the tracer platform.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

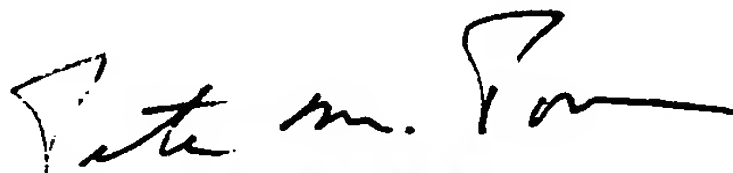
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J Parsley whose telephone number is (571) 272-6890. The examiner can normally be reached on 9hr compressed.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (571) 272-6891. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David Parsley
Patent Examiner
Art Unit 3643


PETER M. POON
SUPERVISORY PATENT EXAMINER

5/6/05